

STATUS OF CLAIMS

1. – 4. (cancelled)

5. (restored and currently amended) A path-converted variable optical attenuator comprising:

a plurality of transmitting fibers each for respectively launching an a
respective optical signal through a transmitting core;

a plurality of mirrors for respectively each having a reflector for
obstructing the a respective optical signal launched from said transmitting core of
said plurality of transmitting fiber from proceeding into said a receiving core of said
a plurality of receiving fibers, and said mirrors being displaced in a direction
allowing attenuation of a portion of the respective optical signal of from said
plurality of transmitting fibers into said plurality of respective receiving fibers to
respectively attenuate the optical signal, wherein each of said plurality of
transmitting fibers, each the respective one of said plurality of receiving fibers and
each the respective one of said plurality of mirrors constitutes a pair group to
enable attenuation to each of the respective optical signal; and

a semiconductor wafer arranged parallel to said plurality of
transmitting fibers, said plurality of receiving fibers and said plurality of mirrors.

6. – 8. (canceled)

9. (currently amended) A path-converted variable optical attenuator comprising:

a transmitting fiber for launching an optical signal through a transmitting core;

a receiving fiber for receiving the optical signal from said transmitting fiber through a receiving core; and

a mirror having a reflector for obstructing the optical signal launched from said transmitting core of said transmitting fiber from proceeding into said receiving core of said receiving fiber, and being displaced in a direction allowing a portion of the optical signal of said transmitting fiber into said receiving fiber to attenuate the optical signal ;

wherein said mirror is linearly displaced in a direction perpendicular to an optical path between said transmitting fiber and said receiving fiber, wherein said reflector of said mirror has an inclination relative to the optical path, the optical signal launched from said transmitting fiber and reflected by said reflector of said mirror being reflected in a path that does not coincide with the optical path between said transmitting fiber and said receiving fiber;

~~A path-converted variable optical attenuator in accordance with claim 2, further comprising:~~

a further transmitting fiber for launching a further optical signal through a further transmitting core;

a further receiving fiber for receiving the further optical signal through a further receiving core; and

a further mirror having a reflector for obstructing the further optical signal between said further transmitting core and said further receiving core by being linearly displaced in a direction perpendicular to the further optical path, said reflector of said further mirror having an inclination relative to the further optical path, reflecting any obstructed portion of the further optical signal in a path that does not coincide with the optical path between said further transmitting fiber and said further receiving fiber, to attenuate the further optical signal ;

the transmitting fiber, the receiving fiber and the mirror constituting a group, and the further transmitting fiber, the further receiving fiber and the further mirror constituting a further group, the group and further group enabling attenuation of the optical signal and the further optical signal, respectively; and

a semiconductor wafer arranged parallel to said transmitting fiber, and further transmitting fiber to said receiving fiber and said further receiving fiber and to said mirror and said further mirror.

10. (previously presented) A path-converted variable optical attenuator in accordance with claim 9, wherein said mirror is wedge shaped.

11. (new) The path-converted variable optical attenuator according to claim 9, further comprising a substrate arranged parallel to said transmitting fiber, said receiving fiber and said mirror.

12. (new) The path-converted variable optical attenuator according to claim 9, further comprising an MEMS actuator for controlling said mirror to be linearly displaced in a direction perpendicular to an optical path between said transmitting fiber and said receiving fiber.

13. (new) A path-converted variable optical attenuator in accordance with claim 9, wherein said mirror is wedge shaped.